

REMARKS

The Office Action mailed October 6, 2004 and the references cited by the Examiner have been carefully reviewed by Applicants. Claim 1-21 are pending in this case. Applicants have amended claims 1-6, 9-13, and 18-19, provided replacements sheets for Figures 1 and 2, added new Figure 5, and made certain amendments to the specification. Applicants submit that the amendment to the claims and specification, replacement figures and new figure are proper. Applicants respectfully request that the Examiner enter the amendments to the claims and specification, replacement sheets, and new figure. Applicants submit that the amended and newly added claims, for the reasons discussed below, place this case in condition for allowance and Applicants earnestly seek such allowance.

Corrections and Objection to Drawings

In the Office Action mailed October 6, 2004, the Examiner requested that drawings Figures 1 and 2 be corrected to designate the figures as Prior Art in a legend and that the substitute drawings be labeled "Replacement Sheet" in the page header. Enclosed herewith are corrected Figures 1 and 2 which include the "Prior Art" legend and "Replacement Sheet" label required by the Examiner.

The Examiner also objected to the drawings on the basis that the drawings must show every feature of the invention specified in the claims. The Examiner identified claims 1, 6, and 11 and stated that the claimed methods must be shown or the feature(s) canceled from the claim(s). The Examiner noted that no new matter should be entered.

According to MPEP 601.01(f), "it has been the USPTO practice to treat an application that contains at least one process or method claim as an application for which a drawings is not

necessary for an understanding of the invention under 35 U.S.C. 113 (first sentence)."

Applicants note that claims 1, 6, and 11 are method claims, so Applicants do not consider a drawing necessary to support these claims. However, Applicants' understanding of the Office Action is that the Examiner is requiring such drawings. As far as Applicants understand, the only basis for such a requirement is in 35 U.S.C. 113 which states, "when the nature of such subject matter admits of illustration by a drawing and the applicant has not furnished such a drawings, the Director may require its submission." Such submission would, of course, be subject to the limitations of the third sentence of 35 U.S.C. 113. Therefore, Applicants consider is proper to include herewith the drawing labeled Figure 5, since it has been required by the Examiner and is permitted by 35 U.S.C. 113.

Applicants respectfully submit that the replacement sheets and newly submitted figure overcome the Examiner's objections to Figures 1 and 2, and satisfy the Examiner's requirements regarding illustration of method claims 1, 6, and 11.

Amendment to the Specification

Applicants have noted new Figure 5 in the Brief Description of the Drawings portion of the specification.

Applicants have copied the text of claims 1, 6, and 11 into the specification after paragraph 52, which is proper and does not add new matter since the claims are part of the original disclosure, and referenced Figure 5 which was required by the Examiner.

Request for Information

In the Office Action mailed October 6, 2004, the Examiner requested all information on

The Object Management Group's Notification Service Versions 1.0 and 1.1 be provided.

Enclosed herewith are Object Management Group's Notification Service Versions 1.0 and 1.1.

Applicants note that the Examiner waived the fee and certification requirements of 37 C.F.R. 1.97 for these documents.

Rejection of Claims under 35 U.S.C. 112

In the Office Action mailed October 6, 2004, the Examiner rejected claims 6 and 11 as failing to comply with the enablement requirements. The Examiner stated that Applicants' specification provides not details as to how a message is converted from a native language format and to a structured event message format, as in claim 6, and vice versa, as in claim 11.

Applicants respectfully submit that the specification provides ample support for claims 6 and 11 to enable one skilled in the art. Specifically, paragraph 4 (Background of the Invention of Applicants' specification) states that message oriented middleware products "can typically send and receive data in the native data formats of the applications they connect, adapters are typically not needed to convert data from the format of the applications to the format of a publish/subscribe engine serving as the brokering hub." Applicant submits that the message oriented middleware such as JMS and CORBA are operable to communicate messages in their native formats of JMS and CORBA, respectively. Applicants further submit that the native format of, for example, JMS messages are well known, and therefore, that adapters, such as adapter 350 illustrated and described with reference to Figure 3, are well known for communicating with messages in such native format.

Applicants further submit that Figure 4 and paragraphs 27–52 of Applicants' specification provide a comprehensive description sufficient to enable one of ordinary skill in the art regarding

the format of a structured event message. Paragraph 26 of Applicants' specification states that "the data format used for messages in the Middleware Brokering System is known as a structured event and is described in The Object Management Group's Notification Service Specification Versions 1.0 and 1.1, which are incorporated herein by reference in their entirety and from which the following descriptions of the fields in a structured event are taken." The noted Notification Service Specification Versions 1.0 and 1.1 are well known in the art and are the same requested by the Examiner in the Request for Information and included with this response. Thus Applicants respectfully submit that converting messages from a native format, such as JMS, to the format of a structured event message is enabled by Applicants' specification sufficient to teach one skilled in the art how to make and use the invention placing the public in possession of the invention claimed in Applicants' claims 6 and 11. For this reason, Applicants respectfully request that the Examiner withdraw the rejection of Claims 6 and 11 under 35 U.S.C. 112.

Rejection of Claims under 35 U.S.C. 102

The Examiner rejected Applicants' claims 1, 6-8, 10-17 and 19 as being anticipated by Maffeis (U.S. Patent No. 6,721,779). Applicants have amended claims 1-6, 9-13, and 18-19 to further clarify that the present invention, as claimed, is substantially different than the Maffeis reference cited by the Examiner. The present system, as claimed, is directed to a method for brokering messages between middleware computing systems, and more specifically to a middleware brokering server that brokers messages between a first and second middleware computing systems. Applicants' amendments clarify that the middleware brokering server is operable for brokering messages between two or more middleware computing systems, by receiving a message sent from a first middleware computing system into the middleware

brokering server and sending the message from the middleware brokering server to a receiving second middleware computing system.

The Maffeis addresses the problem that to support wireless mobile devices requires the middleware vendor to implement a message transmission protocol (TCP/IP, HTTP, SSL) atop a wireless transport protocol (WAP, GSM, SMS, GPRS, UMTS) and to integrate this message transmission protocol into the middleware. (Maffeis col. 1, lines 28-33) Maffeis discloses a message proxy 1 servicing a JMS message oriented middleware 3 and thin JMS message clients 2, 2', 2''. (Maffeis col. 2, lines 54-58) The message proxy 1 is shown having six specific wireless transport protocol adapters 1a-1f to promote communication between the JMS thin clients 2 and the JMS message oriented middleware 3. (Maffeis col. 3, lines 5-9) The Maffeis reference, however, fails to teach, disclose, or suggest a middleware brokering server that brokers messages between middleware computing systems as claimed by Applicants' amended claim 1.

Maffeis teaches only one message oriented middleware 3 and no middleware brokering server. The message proxy 1 is not analogous to the middleware brokering server as claimed by Applicants, since the message proxy 1 acts as a proxy only for a single message oriented middleware 3. (Maffeis col. 2, line 67 – col. 3, line 4.) Maffeis suggests that any number of message proxies 1, thin JMS message clients 2, and message oriented middleware products 3 may be present. (Maffeis col. 2, lines 61-63) However, additional message proxies 1 and message oriented middleware products 3 added to Maffeis would not produce Applicants' claimed invention. Instead, each additional message proxy 1 would service a specific, separate message oriented middleware product 3, and each additional message proxy 1 would only promote communication between the JMS thin clients 2 and the message oriented middleware 2 for which the additional message proxy 1 serves. Applicants' message brokering server is

operable for servicing multiple message oriented middleware products, as stated in claim 1, by receiving a message sent from a first middleware computing system into the middleware brokering server and sending the message from the middleware brokering server to a receiving second middleware computing system. Applicants respectfully submit that the Mafeis reference fail to teach, disclose, or suggest Applicants' invention as claimed in amended claim 1.

The Examiner also rejected claims 6, 7, and 11-16 based on Mafeis. These claims are directed to converting the message format from a native language format to a structured event message format. Applicants respectfully submit that the text (Mafeis col. 3, lines 5-22) cited by the Examiner in rejecting claim 6, 7, and 11-16 are directed to network and wireless transport protocols and fails to teach, disclose, or even suggest a structured event message format. For all these reasons, Applicants respectfully request the Examiner to withdraw the 35 U.S.C. 102 rejection of claims 1 and dependent claims 6-8, 10-17 and 19, and pass these claims to issue.

Rejection of Claims under 35 U.S.C. 103

The Examiner rejected claims 1-5 under 35 U.S.C. 103 based on a single reference - the Background of the Invention portion of Applicants' disclosure. The Examiner rejected claim 1 based on Applicants' paragraph 4. Applicant respectfully submits that paragraph 4 discloses a hub and spoke configuration where a single middleware broker 232 promotes communication between various applications 222, 224, 226, 228, and 230. Applicants' background does not, however, disclose a middleware brokering server operable for brokering messages between a first and second middleware by receiving a message sent from a first middleware computing system into the middleware brokering server and sending the message from the middleware brokering server to a receiving second middleware computing system. Since the Background portion of Applicants' disclosure fails to provide a basis for rejection of Applicants' invention as claimed in

claim 1, and since dependent claims 2-5 depend from claim 1 and include each and every element of independent claim 1, Applicant respectfully requests that the Examiner withdraw the rejection of claim 1 and depend claims 2-5 under 35 U.S.C. 103 and pass same to issue.

The Examiner rejected claims 2-5, 8, 18, and 20-21 under 35 U.S.C. 103 based on the Maffeis reference. Applicants respectfully submit, for all the reasons stated above and incorporated herein by reference, that the Maffeis reference, either alone or in combination with the other references cited by the Examiner, fail to teach, disclose, or suggest Applicants' invention as claimed in amended claim 1 and dependent claims 2-21.

The Examiner rejected claim 21 under 35 U.S.C. 103 based only on Maffeis. Applicants respectfully submit that the cited portions of Maffeis (col. 5, lines 9-35) do not provide any discussion regarding quality of service as in Applicants' claim 21, but discuss only using command tokens containing subscription information. Therefore, the cited reference fails to teach, disclose, or suggest designating quality of service attributes when configuring a messaging channel as claimed in Applicants' claim 21. For this reason Applicants request the Examiner to withdraw the rejection of claim 21. For all these reasons, Applicants respectfully request full allowance of claims 1-21.

Conclusion

Applicants respectfully submit that the application in its present form is in condition for allowance. If the Examiner has any questions or comments or otherwise feels it would be helpful in expediting the application, Examiner is encouraged to telephone the undersigned at (972) 731-2288. Applicants intend this communication to be a complete response to the Office Action mailed on October 6, 2004.

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the foregoing papers submitted herewith, or to credit any overpayment thereof, to Deposit Account No. 21-0765, Sprint.

Respectfully submitted,



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